

**THE STRIPED LYCHNIS MOTH *SHARGACUCULLIA LYCHNITIS*
(RAMBUR) (LEP.: NOCTUIDAE): A REVIEW OF ITS
DISTRIBUTION IN BUCKINGHAMSHIRE (VC 24) DURING 2000**

PETER HALL

Melanthia, Chiltern Road, Ballinger Common, Great Missenden, Buckinghamshire HP16 9LH.

THE STRIPED LYCHNIS moth *Shargacucullia lychnitis*(Rambur) is listed by Waring (1993) as a Nationally Notable (Na) species (recorded or expected in between 15 and 30 ten-kilometre squares within Britain). Originally placed on the "middle" list of the UK Steering Group report (HMSO, 1995), the moth now resides on the re-structured "priority species" list (UK Biodiversity Group Report, 1998). In recent years, surveys for the moth within Buckinghamshire have occurred at regular intervals (Waring 1992, Albertini *et al.* 1997, Halls 1997a, Hall 1998, 1999, 2000). During 2000, a further large-scale survey was undertaken to review the moths' current status within the county. In total, during a rather frenetic period at the end of July, some 18,916 mullein plants were inspected revealing 2,396 larvae.

These surveys reveal its presence in nine ten-kilometre squares within Buckinghamshire (Figure 1) and provide the basis for the Species Action Plan for the county (Halls 1997b), which is undertaken with the assistance of Buckinghamshire County Council Environmental Services along with input from Butterfly Conservation, The National Trust and the Berks, Bucks, and Oxfordshire Wildlife Trust.

Results

Larvae were only found on *Verbascum nigrum* and the hybrid *V. x-semialbum*; the cool, wet summer of 2000 resulted in some very healthy plants. The survey was carried out during the last week in July, but it was apparent from the start that the larvae were late in appearing. Larvae found on the flower spikes varied from first to final instar, but the majority were small and, as such, were extremely difficult to locate as they were often well-hidden between the florets on the flower spikes. This slowed down the speed with which numbers could be reliably counted and in all instances where sites were re-visited the numbers of larvae were higher than on the first visit. Overall numbers were, therefore, possibly up to 10% higher than shown in the results.

A number of new sites was located for both foodplant and larvae including a large core area near High Wycombe. The known range was also extended with first sightings of larvae in the south-east of the county near Hedgerley.

Table 1 groups the larvae and foodplant results into habitat type enabling preferred habitat types to be revealed for the moth. It enables populations within these habitat types to be compared for relative successes.

Roadside verges still show the best ratio of larvae to plants of all habitats emphasising the importance of this habitat for the long-term survival of the moth. The roadside verge provides the corridor through which the moth can

either spread or mix genes with adjacent colonies. Verge management regimes are now structured so that mullein plants can be carefully avoided during the mowing processes and the final wide cut occurs shortly after most of the larvae have pupated by mid-August.

Habitat Group	Total Plants	Total Larvae	Ratio P/L
Road Verges	2,931	664	4.4: 1
Fields & Margins	4,523	784	5.8: 1
Chalk Grassland	8,536	707	12.1: 1
Woodland	1,518	56	27.1: 1
All	18,916	2,396	7.9: 1

Table 1. Numbers of foodplants and associated numbers of larvae, grouped by habitat type.

The results were further grouped into orders of importance and a number of "priority action sites" were identified. These are group sites that support large colonies of larvae (around which smaller colonies exist). Interestingly only five such group sites were found. The threshold set for qualification was one hundred larvae. Next were "strategic action sites" where between 50 and 100 larvae were located. Finally "development sites" were identified. These are sites where there is a good potential to either establish colonies or expand larval numbers.

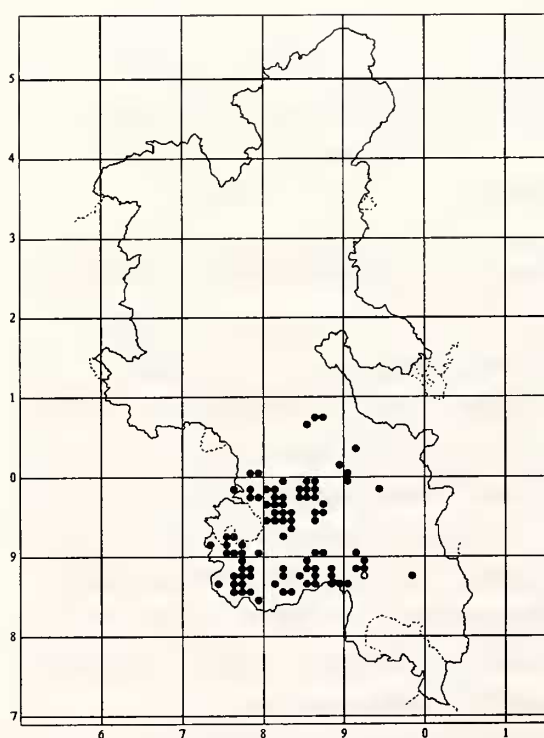


Fig. 1. 1991 - 2000

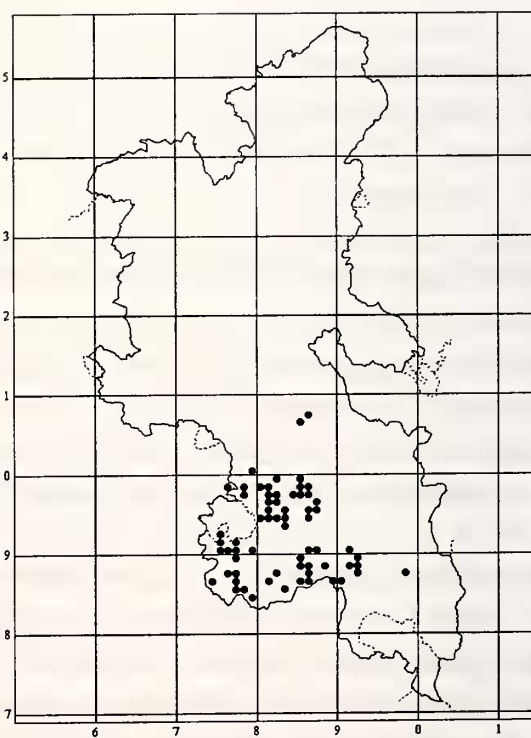


Fig. 2. 2000

Figs. 1 and 2. Striped Lychnis Moth: Survey results for Buckinghamshire VC 24.

The results for 2000 show that the moth populations are fairly stable (Fig. 2). The graph showing population trends (Fig. 3), does indicate a slight fall in larval numbers relative to previous surveys, but this is most probably due to the difficulties in locating all the small larvae within the flower spikes. This overall picture is very encouraging particularly when much of the foodplant is located in rather precarious habitats.

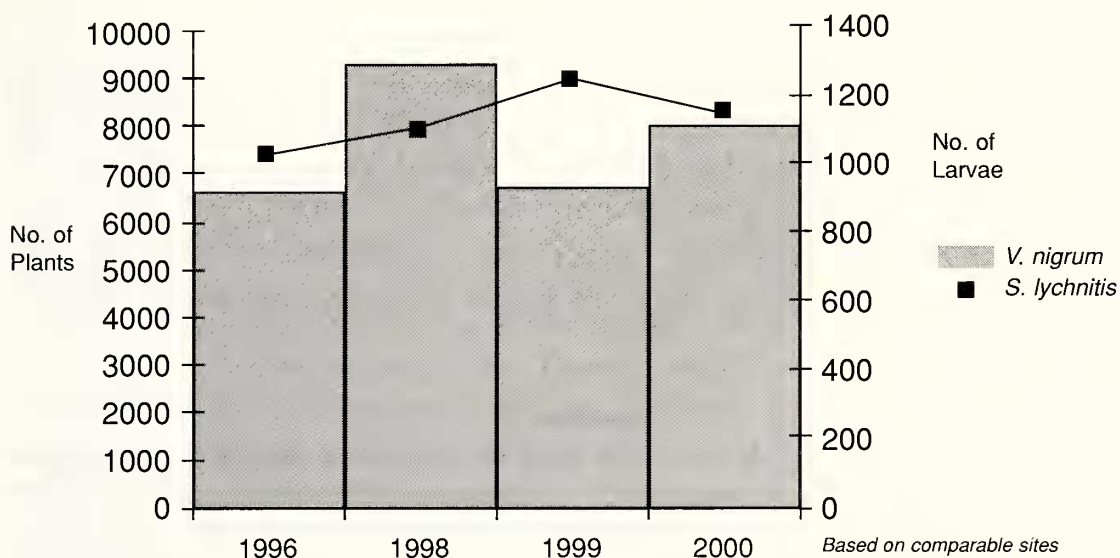


Fig. 3. Population trends in larvae and foodplant of the Striped Lychnis in Buckinghamshire from 1996 to 2000.

Group Habitat results 2000 Survey

Table 1 reveals just how important the roadside verge is to the moth, with one larva on every 4.4 plants. This appears to be the preferred habitat. In all instances of high larval numbers, the habitat was similar. Large concentrations of foodplant in sunny aspects, with little competition from other plants, and in this respect the roadside verge reflects this habitat. If the cutting regimes are just right, then the foodplant grows in the preferred conditions, especially if the verge is cut leaving the plant in a “stand alone” situation afterwards.

Action

Besides the efforts with the cutting regimes along roadside verges, a number of other projects are underway too. Seed has been collected from the foodplant at certain sites and after scrub clearance work during Winter months, areas have been seeded with the local seed to help establish bigger colonies of foodplant. This has seemingly worked and increased larval numbers at two such sites have reflected this successful strategy. Wherever road works occur within the moths distribution range during the Winter, then seeding may also occur. Additionally seedlings are grown in greenhouses over winter for planting out at sites to swell plant numbers.

Future Surveys

The surveys of 1996, 1998, 1999 and 2000 have shown that the overall position is sound for the moth. With this information in hand, it has been decided that future surveys will occur less frequently and the next major survey has been targeted for either 2003 or even as late as 2005. In between times, priority action sites will be monitored annually and the search for new sites will occur.

Acknowledgements

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